

TEST REPORT

LAB NO. : 2002461/ 1 - 2

DATE: 04/08/2020

NAME OF CUSTOMER : M/S. GENUS APPARELS LTD

ADDRESS :

REFERENCE : Letter Ref. No. Nil dated July 23, 2020
K. Attention:

DATE OF RECEIPT : 23/07/2020

DATE OF INITIATION : 23/07/2020

DATE OF COMPLETION : 04/08/2020

SAMPLE DESCRIPTION : SPANDEX JERSEY FABRIC SAMPLE LABELED AS: -

Sr. No.	Description
1.	3 Ply Mask – Initial
2.	3 Ply Mask – After 20 washes
Untreated – Lab control	



Name of Test:

Determination of Antibacterial Activity of Textile products by ISO 20743:2013(E); Quantitative Method

Test Conditions:

Sterilization of Sample : autoclaving
 Neutralizer used : Buffered Saline with Triton X 100 - 0.01 %
 Contact Time : 20 hours
 Contact Temperature : 37⁰ C
 Media and Reagent : Soyabean-casein digest agar

ANTIBACTERIAL ACTIVITY**Results:****1. 3 Ply Mask – Initial**

Test Bacteria	Staphylococcus aureus		Klebsiella pneumoniae	
Strain Number	ATCC 6538		ATCC 4352	
Concentration of inoculums (cfu/ ml)	1.90 x 10 ⁵		2.10 x 10 ⁵	
Difference of extremes for three control specimens Untreated lab control (log) (Condition < 1)	0 hours	20 hours	0 hours	20 hours
	0.009	0.051	0.017	0.091
Difference of extremes for three Antibacterial testing specimens (log) (Condition < 2)	0 hours	20 hours	0 hours	20 hours
	0.013	0.028	0.008	0.027
Growth value of F (F = log C ₁ – log C ₀)	+1.492 : (log C ₁ : +6.50, Log C ₀ :+5.01)		+1.511: (log C ₁ : +6.51 Log C ₀ :+5.00)	
Growth value of G (G = log T ₁ – log T ₀)	-2.520 : (log T ₁ : +2.49, Log T ₀ :+5.01)		-2.330 : (log T ₁ : +2.68, Log T ₀ :+5.01)	
Antibacterial activity value (A = F - G)	4.01 (99.99% bacterial reduction)		3.84 (99.98% bacterial reduction)	
Measuring Method	Plate Count Method			
Type of Sample Material	Fabric Sample			
Sterilisation Method	Autoclave			
Incubation Time	20 hrs.			

2. 3 Ply Mask – After 20 washes

Test Bacteria	Staphylococcus aureus		Klebsiella pneumoniae	
Strain Number	ATCC 6538		ATCC 4352	
Concentration of inoculums (cfu/ ml)	1.90 x 10 ⁵		2.10 x 10 ⁵	
Difference of extremes for three control specimens Untreated lab control (log) (Condition < 1)	0 hours	20 hours	0 hours	20 hours
	0.009	0.051	0.017	0.091
Difference of extremes for three Antibacterial testing specimens (log) (Condition < 2)	0 hours	20 hours	0 hours	20 hours
	0.017	0.021	0.017	0.026
Growth value of F (F = log C ₁ – log C ₀)	+1.492 : (log C ₁ : +6.50, Log C ₀ :+5.01)		+1.511: (log C ₁ : +6.51 Log C ₀ :+5.00)	
Growth value of G (G = log T ₁ – log T ₀)	-1.403 : (log T ₁ : +3.61, Log T ₀ :+5.01)		-1.318: (log T ₁ : +3.69 Log T ₀ :+5.01)	
Antibacterial activity value (A = F - G)	2.89 (99.87% bacterial reduction)		2.83 (99.85% bacterial reduction)	
Measuring Method	Plate Count Method			
Type of Sample Material	Fabric Sample			
Sterilisation Method	Autoclave			
Incubation Time	20 hrs.			

Antibacterial Efficacy:

Antibacterial Value A	Antibacterial Efficacy
2.0 ≤ A < 3.0	Significant
A ≥ 3.0	Strong

COMMENT:

When tested as specified, Fabric labeled as **3 Ply Mask – Initial** has shown **Strong Antibacterial Efficacy** by Quantitative Assessment of activity; **3 Ply Mask – After 20 washes** has shown **Significant Antibacterial Efficacy** by Quantitative Assessment of activity for Staphylococcus aureus and Klebsiella pneumoniae by ISO 20743: 2013(E) Test Method.

For BIOTECH TESTING SERVICES

Dr Shilpa U. Nair
Quality Manager
(Authorized Signatory)